In the Claims

This listing of claims, if entered, will replace all prior versions and listings of claims in the above-identified application.

1-17.   (Canceled)

18.   (**Currently Amended**) A method comprising:
   executing one or more tasks within each of a plurality of nodes of a network to
      dynamically generate:
      first data identifying at least one node of said plurality of nodes at which, **said**
         first data comprising at least one of:
         insert data is added, wherein said insert data is data associated with said
            each of said plurality of nodes, and
         ~~erase~~ **dropped** data is deleted, wherein said ~~erase~~ **dropped** data is data
            associated with said each of said plurality of nodes, and
      second data indicating a format of in-transit data being transmitted over said
         network;
   dynamically identifying a destination node of said in-transit data; and
   transmitting said in-transit data to said destination node using said first data and said
      second data.

19.   (Previously Presented) The method of clam 18, further comprising:
   identifying said plurality of nodes of said network.

20.   (Previously Presented) The method of claim 19, wherein said plurality of nodes are
interconnected by one or more links and
      said second data is configured to indicate a format of in-transit data being
         transmitted over said one or more links.

21. (Currently Amended) The method of claim 19, wherein said insert data ~~and said erase data~~ comprises ~~at least one of~~, data received by said each of said plurality of nodes from said network, and **said dropped data comprises** data transmitted **from** ~~over~~ said each of said plurality of nodes to said network.

22. (Currently Amended) The method of claim 19, wherein said executing comprises requesting at least one of:

> said insert data from said node of said plurality of nodes at which insert data is being
>> added; and
> said ~~erase~~ **dropped** data from said node of said plurality of nodes at which ~~erase~~
>> **dropped** data is being deleted.

23. (Previously Presented) The method of claim 20, wherein said executing comprises:
> requesting, from at least one other node of said plurality of nodes, a format of data over a
>> link of said one or more links attached to said at least one other node of said
>> plurality of nodes.

24. (Previously Presented) The method of claim 23, wherein said requesting comprises:
> requesting at least one of a synchronous transport signal type data and a synchronous
>> transport module type data.

25. (Previously Presented) The method of claim 20, wherein said network satisfies at least one of:
> a first condition wherein, to prevent misconnection in case of failure, traffic is:
>>> switched by dispatching said in-transit data from a failed link to a
>> redundant link and
>>> squelched between said one or more links, and
> a second condition wherein said in-transit data being transmitted over each of said one or
>> more links is re-transmitted in data buckets to at least one predetermined node
>> from said network at regular intervals of time.

26.   (Previously Presented) The method of claim 25, wherein,

said network satisfies said first condition, and

said executing one or more tasks within each of said plurality of nodes to generate said

first data comprises,

performing squelching to prevent misconnection.

27.   (Currently Amended) The method of claim 25, wherein,

said network satisfies said second condition, and

said executing one or more tasks within each of said plurality of nodes to generate said

first data comprises,

for each data bucket, identifying at least one of:

~~at least one of~~ said plurality of nodes on which insert data is being added via said

each data bucket; and

~~at least one of~~ said plurality of nodes on which ~~erase~~ **dropped** data is being

deleted via said each data bucket.

28.   (Previously Presented) The method of claim 19, further comprising:

detecting a failure on a first link of said one or more links on said node of said plurality

of nodes communicating said in-transit data;

identifying a redundant link from said node communicating said in-transit data to said

destination node; and

switching traffic in response to said detecting by switching said in-transit data from said

first link to said redundant link of said one or more links.

29.   (Previously Presented) The method of claim 28, wherein said executing one or more tasks within each of said plurality of nodes comprises executing said one or more tasks within each of said plurality of nodes before said failure occurs.

30. **(Currently Amended)** An apparatus comprising:

means for identifying a plurality of nodes of a network, wherein said plurality of nodes
are interconnected by one or more links; and

means for executing one or more tasks within each of said plurality of nodes to
dynamically generate:

first data identifying at least one node of said plurality of nodes at which,

insert data is added, wherein said insert data is data associated with said
each of said plurality of nodes, or

erase is deleted, wherein said ~~erase~~ **dropped** data is data associated with
said each of said plurality of nodes; and

second data indicating a format of in-transit data being transmitted over said one
or more links**;**

means for **dynamically** identifying a destination node of said in-transit data; and

means for transmitting said in-transit data to said destination node using said first data
and said second data.

31. **(Currently Amended)** The apparatus of claim 30, wherein said insert data and said ~~erase~~
dropped data comprises at least one of, data received by said each of said plurality of nodes
from said network, and data transmitted by said each of said plurality of nodes to said network.

32. **(Currently Amended)** The apparatus of claim 31, wherein said means for executing
comprises:

means for requesting, said insert data from said node of said plurality of nodes at which
insert data is being added; and

means for requesting said ~~erase~~ **dropped** data from said node of said plurality of nodes at
which ~~erase~~ **dropped** data is being deleted.

33. **(Previously Presented)** The apparatus of claim 31, wherein said means for executing
comprises:

means for requesting, from at least one other node of said plurality of nodes, a format of
data being transmitted over a link of said one or more links attached to said at
least one other node of said plurality of nodes.

34. (Previously Presented) The apparatus of claim 33, wherein said means for requesting comprises:

> means for requesting at least one of a synchronous transport signal type data and a
>> synchronous transport module type data.

35. (Previously Presented) The apparatus of claim 31, wherein said network satisfies at least one of:

> a first condition wherein, to prevent misconnection in case of failure, traffic is:
>> switched by dispatching said in-transit data from a failed link to a
> redundant link and
>> squelched between said one or more links; and
> a second condition wherein said in-transit data being transmitted over each of said one or
>> more links is re-transmitted in data buckets to at least one predetermined node
>> from said network at regular intervals of time.

36. (Previously Presented) The apparatus of claim 35, wherein,

> said network satisfies said first condition, and
> said means for executing one or more tasks within each of said plurality of nodes to
>> generate said first data comprises,
>> means for performing squelching to prevent misconnection.

37. (Currently Amended) The apparatus of claim 35, wherein,

> said network satisfies said second condition, and
> said means for executing one or more tasks within each of said plurality of nodes to
>> generate said first data comprises, for each data bucket, means for identifying:
>> at least one of said plurality of nodes on which insert data is being added via said
>>> each data bucket; or ~~and~~
>> at least one of said plurality of nodes on which ~~erase~~ <u>dropped</u> data is being
>>> deleted via said each data bucket.

38.   (Previously Presented) The apparatus of claim 31, further comprising:

means for detecting a failure on a first link of said one or more links on said node of said
plurality of nodes communicating said in-transit data;

means for identifying a redundant link from said node communicating said in-transit data
to said destination node; and

means for switching traffic in response to said detecting by switching said in-transit data
from said first link to said redundant link.

39.   (Previously Presented) The apparatus of claim 38, wherein said means for executing one
or more tasks within each of said plurality of nodes comprises means for executing said one or
more tasks within each of said plurality of nodes before said failure occurs.

40.   (Currently Amended) A network node comprising:

an interface to couple said network node to a network, wherein said network comprises a
plurality of nodes interconnected by one or more links and said plurality of nodes
comprises said network node;

a timing communications and control processor configured to:

identify said plurality of nodes, and

execute one or more tasks within network node to **dynamically** generate:

first data identifying at least one node of said plurality of nodes at which,

insert data is added, wherein said insert data is data associated with
said each of said plurality of nodes; ~~and~~ **or**

~~erase~~ **dropped** data is deleted, wherein said ~~erase~~ **dropped** data is
data associated with said each of said plurality of nodes, and

second data indicating a format of in-transit data being transmitted over
said one or more links;

dynamically identify a destination node of said in-transit data; and

communicate said in-transit data to said destination node using said first data and
said second data.

Application No.: 10/725,709

41.   (Previously Presented) The network node of claim 40, wherein said data associated with said each of said plurality of nodes comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes over said network.

42.   **(Currently Amended)** The network node of claim 41, wherein said timing communications and control processor configured to execute one or more tasks comprises:

a timing communications and control processor configured to:

request, from at least one other node of said plurality of nodes, said insert data from said node of said plurality of nodes at which insert data is being added and said ~~erase~~ **dropped** data from said node of said plurality of nodes at which ~~erase~~ **dropped** data is being deleted.

43.   (Previously Presented) The network node of claim 41, wherein said timing communications and control processor configured to execute one or more tasks comprises:

a timing communications and control processor configured to:

request, from at least one other node of said plurality of nodes, a format of data being transmitted over a link of said one or more links attached to said at least one other node of said plurality of nodes.

44.   (Currently Amended) A machine-readable storage medium having a plurality of instructions executable by a machine embodied therein, wherein said plurality of instructions when executed are configured to cause said machine to perform a method comprising:

identifying a plurality of nodes of a network, wherein said plurality of nodes are interconnected by one or more links; and

executing one or more tasks within each of said plurality of nodes to **dynamically** generate:

first data identifying at least one **node** of **said plurality of nodes at which,**

~~a node of said plurality of nodes on which~~ **insert data is added**

wherein said insert data **is data** associated with said each of said plurality of nodes ~~is added to said network, and~~ **or**

~~a node of said plurality of nodes on which~~ **dropped data is deleted**

wherein said dropped data **is data** associated with said each of said plurality of nodes ~~is dropped from said network,~~ and

second data indicating a format of **in-transit** data being transmitted over said one or more links;

dynamically identifying a destination node of said in-transit data; and

communicating said in-transit data to said destination node using said first data and said second data.

45.   (Currently Amended) The machine-readable storage medium of claim 44, wherein said insert data and said ~~erase~~ **dropped** data comprises at least one of, data received by said each of said plurality of nodes from said network, and data transmitted by said each of said plurality of nodes to said network.

46.   (Currently Amended) The machine-readable storage medium of claim 45, wherein said executing comprises:

requesting, from at least one other node of said plurality of nodes, said insert data from said node of said plurality of nodes at which insert data is being added and said ~~erase~~ **dropped** data from said node of said plurality of nodes at which **said** ~~erase~~ **dropped** data is being deleted.

47.   (Previously Presented) The machine-readable storage medium of claim 45, wherein said executing comprises:

requesting, from at least one other node of said plurality of nodes, data indicating a format of data being transmitted over a link of said one or more links attached to said at least one other node of said plurality of nodes.

Application No.: 10/725,709